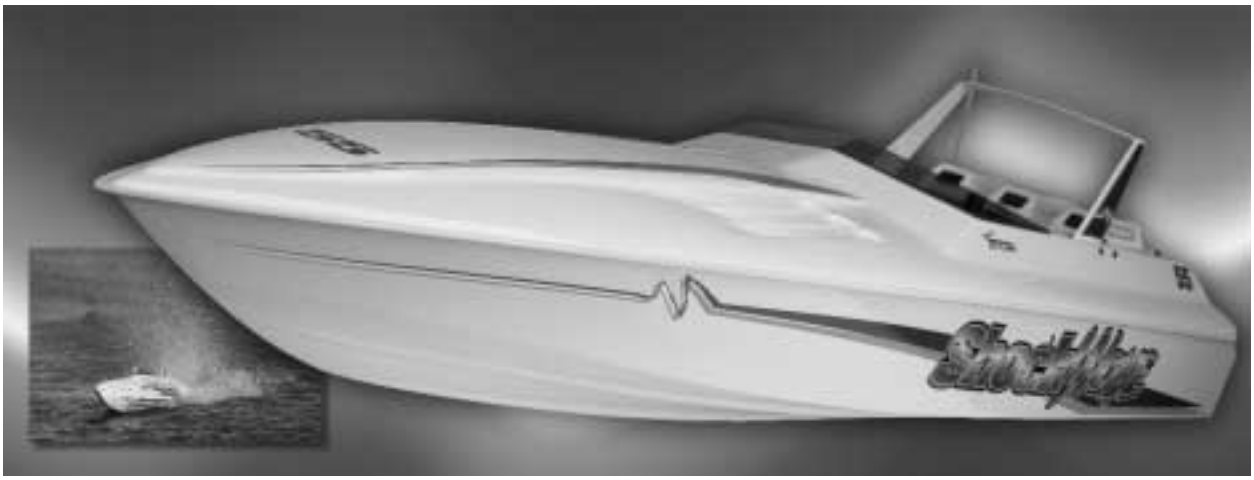
PRO BOAT

ShockWave™

AN EXPLOSION OF SPEED

INSTRUCTION MANUAL



Overall Length	61 1/2"
Hull Length	55"
Beam	14 3/4"
Weight	14.5 lb
Speed	35 mph
Engine	Zenoah G-23 Marine
Propeller	Prather 270
Radio System	JR XR3 (FM)

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THE SHOCKWAVE

INTRODUCTION

Thank you for purchasing the ProBoat ShockWave. It's important that you read and follow this instruction manual carefully and run your boat responsibly. With proper care and maintenance, you will be able to enjoy your ShockWave for many years to come.

Carefully unpack your new ShockWave and examine the boat and its contents. The kit contains one ShockWave and one JR XR3 Radio System transmitter. All you need to supply is 12 "AA" batteries and gas and oil.

If you find any damage or there are missing items, immediately notify the place of purchase.

WARNING

This boat is not a toy! It is a high performance R/C model boat. If operated in a careless or reckless manner, the ShockWave is capable of inflicting serious injury to people and property.

IMPORTANT-SAFETY INFORMATION — PLEASE READ

You are responsible for the safe operation of your R/C boat. Do not take risks that endanger you or others.

When operating the boat in the water, stay clear of people, full-size boats, stationary objects, and wildlife. Also, watch for fishing lines that can get tangled in the propeller. It is preferable to operate your ShockWave in low wake, low wind conditions and in areas free of people, objects, and wildlife.

Before operating your model, make sure your frequency is clear. If someone else is operating on the same frequency, both models could go out of control, possibly causing damage to the models, as well as others.

If at any time while operating your R/C model you sense any abnormal function, end your operation immediately. Do not operate your ShockWave again until you are certain the problem has been corrected.

Check all of the hardware, muffler, and propeller for security before and after each time you run your ShockWave.

Always keep clear of the propeller when the engine is running.

Thoroughly read all Zenoah safety and operating instructions and JR operating instructions included with this boat before operating your ShockWave.

SERVICE CENTER INFORMATION

If you have any questions regarding the ShockWave, please contact:
Horizon Service Center
4105 Fieldstone Road
Champaign, IL 61822
217-355-9511 or 1-877-504-0233

http://www.horizonhobby.com

Suggested Field Equipment and Supplies

Although your ShockWave comes fully assembled and ready for action, you will need a few tools to keep it running in top form. We recommend that you have in your field kit the following items:

5/32 Allen wrench
3/32 Allen wrench
5/64 Allen wrench
9/64 Allen wrench
Large adjustable wrench
Small adjustable wrench
Small tube of heavy grease
Threadlock (blue)
Small tube of clear silicone sealer
CA or epoxy
Glass cleaner
Clean rags or towels
Gasoline and oil mixture in an appropriate container
Fuel bulb or funnel for filling the fuel tank
Hangar 9 Ratio-Rite Cup (HAN3101) for perfect measuring of oil/gas mixtures
"AA" Alkaline Batteries (12)
Clear 3M tape

Contents of ShockWave Kit

Section 1: Building the Boat Stand

Parts Needed	Tools and Adhesives Needed
• Plywood boatstand pieces (4)	• CA or epoxy

Step 1. There are 4 plywood boatstand pieces. The 2 short plywood pieces are the ends of the boat stand. Notice that one of the two short pieces has a channel cut out in the center for the stuffing box to clear.

Step 2. Attach the 2 long plywood pieces of the interlocking boatstand to one end of the short plywood pieces. Repeat with the remaining short plywood pieces.

Step 3. Secure the interlocking boatstand with medium thick CA or epoxy.

Section 2: Installing the Receiver and Transmitter Batteries

Step 1. Remove the rear hatch with a 3/32 hex wrench.

Step 2. Remove clear plastic cover from the radio box.

Step 3. Remove the receiver battery holder and install 4 “AA” alkaline batteries in the battery holder.

Step 4. Carefully reinstall the battery holder.

Step 5. Replace the radio box cover and tape around the edge on all four sides.

Step 6. Replace the rear hatch and secure the four screws.

Step 7. Remove the JR XR3 transmitter from its foam packaging.

Step 8. Remove the battery access cover from the bottom of the transmitter and remove the empty battery holder. Install 8 “AA” alkaline batteries in the battery holder.

Step 9. Reinstall the battery holder in the transmitter and re-attach the transmitter battery access cover.

Section 3: Fuel/Oil Mixture

Step 1. Mix gasoline and 2-stroke oil at a mixing ratio of 32 to 1. That's 4 oz per gallon or 20 oz per 5 gallons. A perfect tool to ensure proper mixing ratios every time is the Hangar 9 Ratio-Rite Measuring Cup (HAN3101).

Step 2. Remove the fuel tank cap and fill the fuel tank with the gas and oil mixture. Use a funnel to prevent fuel spills when fueling. If you have a spill inside of the boat, wipe up the fuel with a rag or paper towel.

Section 4: Range Checking the XR3 Radio System

It is important before the first run of your ShockWave to range check the receiver and transmitter for proper operation and to ensure proper control movement of the rudder and throttle. It is also important to ensure that the antenna on the boat is erected properly and that all batteries are in working condition.

Step 1. With the radio turned on, the antenna retracted, and the engine running (refer to **Section 5**), walk off 40 to 50 paces from your ShockWave.

Step 2. Have an assistant remain with the boat to check for proper control movement from your transmitter input. When you have completed the range check, press the kill switch to prevent the engine from overheating. If there are any abnormalities, do not operate the boat until the problem is resolved. If the problem persists, contact the Horizon Service Center.

Note: It is a good idea to always do a range check prior to operating your boat after any major repair, installation of new batteries, or at the beginning of each boating season.

Section 5: Starting the Engine

Step 1. Read the Zenoah Engine Instruction Manual included with this kit to become more familiar with the proper care and operation of the Zenoah G-23 Marine Engine. Do not move on until you have done this.

Step 2. To start the engine, push the priming bulb located on the carburetor 3 to 4 times to prime the engine. If the engine is warm, there should be no need to prime the engine.

Open the throttle approximately 1/3 to 1/2 of the full open position.

Quickly pull the starter cord a few times until the engine starts.

Step 3. The Zenoah G-23 Marine Engine is water-cooled, so it is important to place the ShockWave in the water as soon as possible after the initial engine start.

Step 4. Maneuver the ShockWave from right to left at medium speed past your position. As the boat passes by your position, watch for water being discharged from the water outlet on the left side of the hull. Water flowing from the water outlet indicates that the engine is being properly cooled.

Section 6: Maintenance

Your ShockWave should provide many hours of exciting high-speed racing fun with just minor maintenance. Preventative maintenance is very important. Taking the time to ensure that all the set screws and bolts are tight before each operation of the boat will prevent many problems. Periodically check to see that the engine is secure in its mount.

Before Operating your ShockWave:

Check that all screws, nuts, and hardware are securely in place. This is very important, for the muffler screws will occasionally vibrate loose during the first few initial runs.

Check the propeller for damage in the form of dings, chipping, or cracking. If you find any damage, replace the propeller, as the damage will negatively effect the performance of the boat and could cause safety concerns.

When refueling, always wipe off any excess fuel that may have spilled into or onto the boat.

After Operating your ShockWave:

Wipe off any exhaust residue collected on the boat.

Wipe off any water from the boat and hull. Ensure that all the metal hardware is dry. If operating the ShockWave in a salt-water environment, it is advisable to wash off the upper deck, hull, and all the metal hardware with fresh water, then dry them with a clean rag or towel.

Ensure that the radio box and equipment inside is dry.

Lubrication

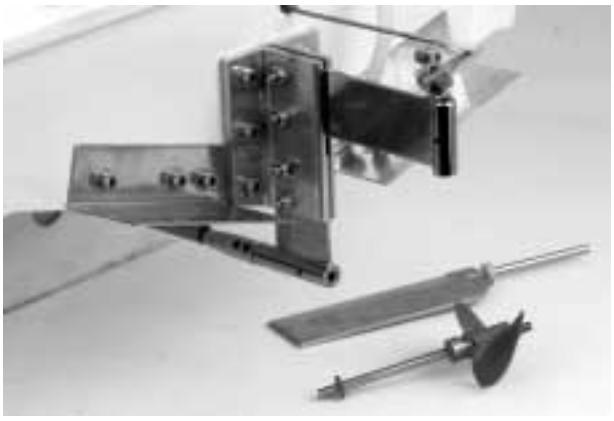
It is important to lubricate the flex drive shaft and the propeller shaft with heavy grease every 15 to 20 hours of operation. Please read and complete the following directions below for lubricating the flex drive and propeller shaft.

Step 1. Obtain a small container to hold the many small parts that you will be removing from the ShockWave so they don't get misplaced.

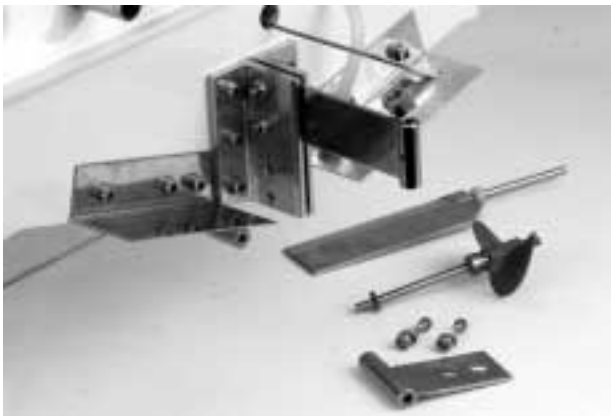
Step 2. Use a 3/32 Allen wrench to loosen the socket head screw on the rudder control horn. Remove the rudder. Temporarily store the two nylon washers in small container.

Step 3. Remove the two set screws on the brass ferrule with a 5/64 Allen wrench. Place the 2 set screws in the small parts container.

Step 4. Pull the propeller and shaft straight out. Removing the propeller and shaft from the strut may require a strong pull or twisting motion. Be careful not to misplace the two brown Teflon washers as you remove the shaft.

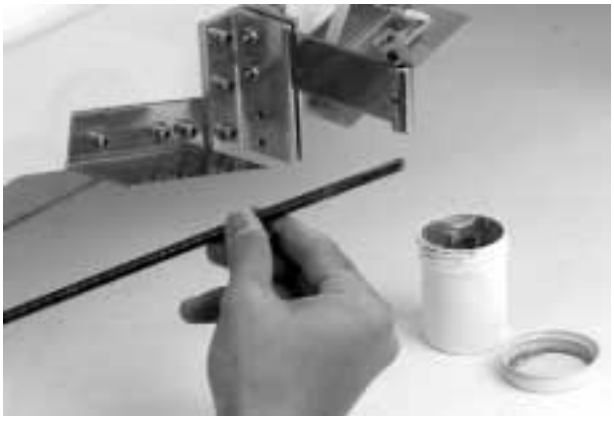


Step 5. Loosen the top 2 bolts on the strut mount with a 9/64 Allen wrench. Loosen and remove the 2 bottom bolts from the strut mount. Remember to hold on to the strut mount when removing the bolts. Place the 2 nuts, bolts, and washers in the small parts container.



Step 6. Remove the flex drive cable from the stuffing box.

Step 7. Lubricate the flex drive cable thoroughly with heavy grease, including the forward, square-shaped part of the flex drive cable that inserts into the collet.



Step 8. Reinstall the lubricated flex drive cable. Ensure that the squared end is engaged inside the collet.

Step 9. When reinstalling the flex drive, ensure that the holes for the set screws are accessible from the side so the set screws can be easily tightened with a 5/64 Allen wrench.

Step 10. Reinstall the lower shaft drive strut into the strut mount. Reinstall the 2 lower bolts and loosely tighten.

Step 11. Loosely tighten the 2 upper bolts on the strut mount. Ensure that the rudder support is straight and that the lower shaft drive strut is in line with the stuffing box. Tighten all 4 strut mount bolts.

Step 12. Lubricate the propeller shaft and reinstall. Ensure that the 2 brown nylon spacers are reinstalled on both sides of the shaft drive strut. Reinstall the 2 set screws on the brass ferrule using Threadlock.

Step 13. Reinstall the rudder into the rudder strut. Ensure that the nylon washers are reinstalled between the rudder shaft and the rudder strut on the bottom and the rudder shaft and the rudder control horn on the top.

Note: For more detailed information on the operation of the Zenoah G-23 Marine Engine or the JR XR3 Radio System, please consult the appropriate manual included with this kit.

Section 7: Performance Tips

Trim Tabs: The trim tabs can greatly enhance the performance of your ShockWave. To adjust the angle of the trim tabs, use a large adjustable wrench to carefully bend the tabs as shown. This **must** be done carefully so that you do not damage the transom. If you would like a calmer, more controlled run, carefully bend the tabs down 1/8". If your goal is to go faster and to add excitement, bend the tabs carefully up.

Wake Conditions: It is advisable to run your ShockWave in low to medium wake conditions to avoid having problems with the boat overturning. If the conditions are questionable, bend the trim tabs down a bit to ensure a less likelihood of having the boat overturn.

Section 8: Replacement Parts

If replacement parts are needed for your ShockWave, you can find these quality parts at your local hobby shop.

Part #

PRB2001 Right/Left Strut Bracket
PRB2002 Strut w/Bushing
PRB2003 Rudder Extension
PRB2004 Control Arm
PRB2005 Nylon Washers (2)
PRB2006 Steel Shaft Log (280mm-11.0")
PRB2007 Teflon® Liner (295mm-11.6")
PRB2008 Propeller Shaft
PRB2009 1/4" Flex Cable
PRB2010 Brass Ferrule w/ Set Screws
PRB2011 Trim Plates
PRB2012 Cable Collet
PRB2013 Brass Insert for Propeller
PRB2014 Kill Switch w/ Wiring
PRB2015 Throttle Cable w/ Nylon Tube & Solder Link
PRA8049 Rudder
PRA8134 Teflon Thrust Washers (3)
PRA8136 Drive Dog w/ Set Screws
PRA8135 Propeller Nut (3)
PRAS270 Propeller (2.74 x 4.20 Stainless)
PRA8137 Water Outlet
PRA8113 4-40 Radio Box Seal
PRB2016 Screw/Lock Nut/Washer/Blind Nut Bag (52)
PRB2017 Hull w/ Engine Rails
PRB2018 Engine Support Brackets (4)
PRB2019 Vibration Mount
PRB2020 Isolation Dumpers (4)
PRB2021 Hardware Fastener Set (44)
PRB2022 Muffler Stacks
PRB2023 Tinted Windshield
PRB2024 Radio Box Complete
PRB2025 Water-cooling Tubing
PRB2026 Boat Stand
PRB2027 Ignition Wire Extention
PRB2028 Fuel Tank
PRB2029 Decal Set

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